

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US2004/043112

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 C07D471/04 A61K31/437

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 132 381 A (CERMOL S.A) 12 September 2001 (2001-09-12) cited in the application examples 51-54	1-71
X	US 5 302 601 A (KHANNAL ET AL) 12 April 1994 (1994-04-12) cited in the application claims 1-10; examples 1-70	1-71
X	US 4 990 518 A (KHANNA ET AL) 5 February 1991 (1991-02-05) cited in the application the whole document claims 1-14; examples 1-12	1-71
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the international search

27 June 2005

Date of mailing of the international search report

05/07/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax (+31-70) 340-3016

Authorized officer

Deutsch, W

## INTERNATIONAL SEARCH REPORT

 International Application No  
 PCT/US2004/043112

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 96/12703 A (G.D. SEARLE & CO; KHANNA, ISH, KUMAR; STEALEY, MICHAEL, ALLAN; WEIER,) 2 May 1996 (1996-05-02) cited in the application compounds 5,8,14 -----	1-71
X	US 5 486 525 A (SUMMERS, JR. ET AL) 23 January 1996 (1996-01-23) cited in the application the whole document -----	1-71
X	EP 0 076 530 A (JANSSEN PHARMACEUTICA N.V) 13 April 1983 (1983-04-13) '5-(4-Fluorobenzyl)-5H-imidazo[4,5-c]pyridin-2-yl]-methylamine -----	1-71
X	US 5 585 492 A (CHANDRAKUMAR ET AL) 17 December 1996 (1996-12-17) cited in the application examples 347,C,349,C,351,C,355C,56,C; table 19 -----	1-71
X	US 5 137 896 A (VAN DAELE ET AL) 11 August 1992 (1992-08-11) cited in the application 5-[(fluorophenyl)methyl]-2-amino-5-H-imidazo[4,5-c]-pyridine and 5-[(fluorophenyl)methyl]-2-amino-5-H-imidazo[4,5-c]-pyridine-carbamate, methyl ester -----	1-71
P,X	WO 2004/005286 A (K.U.LEUVEN RESEARCH & DEVELOPMENT; GILEAD SCIENCES, INC; NEYTS, JOHAN;) 15 January 2004 (2004-01-15) the whole document page 4, line 3 - line 5 -----	1-71
X	EP 0 417 745 A (G.D. SEARLE & CO) 20 March 1991 (1991-03-20) cited in the application the whole document -----	1-71
X	WO 99/27929 A (MERCK & CO., INC; HALCZENKO, WASYL; STUMP, CRAIG, A) 10 June 1999 (1999-06-10) examples 4,5 -----	1-71
X	US 5 227 384 A (KHANNA ET AL) 13 July 1993 (1993-07-13) cited in the application the whole document examples 1-67 -----	1-71

-/-

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US2004/043112

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 446 032 A (WHITTAKER ET AL) 29 August 1995 (1995-08-29) the whole document	1-71
X	EP 0 344 414 A (G.D. SEARLE & CO) 6 December 1989 (1989-12-06) the whole document	1-71
X	US 5 011 832 A (DININNO ET AL) 30 April 1991 (1991-04-30) Table III, example 135, 3rd compound	1-71
X	GB 2 158 440 A (FARMITALIA CARLO * ERBA S P A) 13 November 1985 (1985-11-13) the whole document	1-71
X	RYUICHI ET AL.: "Synthesis and Evaluation of Novel Nonpeptide Angiotensin II Receptor Antagonists: Imidazo[4,5-c]pyridine Derivatives with an Aromatic Substituent" CHEM. PHARM. BULL, vol. 43, no. 3, 1995, pages 450-460, XP001206481 cited in the application page 452; compounds 19,20	1-71
X	THOMAS D. PENNING ET AL.: "Synthesis of Imidazopyridines as Potent Inhibitors of Leukotriene A4 Hydrolase" BIOORGANIC AND MEDICINIAL CHEMISTRY LETTERS, vol. 13, 2003, pages 1137-1139, XP002333169 page 1138; compound 8D	1-71
X	YUTILOV YU M ET AL: "Synthesis and antiviral activity of spinaceamine derivatives" 1989, CAPLUS , XP002265211 abstract	1-71

## INTERNATIONAL SEARCH REPORT

nation on patent family members

International Application No  
PCT/US2004/043112

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1132381	A	12-09-2001	EP 1132381 A1	12-09-2001
			AU 3591301 A	17-09-2001
			WO 0166526 A1	13-09-2001
US 5302601	A	12-04-1994	US 4914108 A	03-04-1990
			US 5019581 A	28-05-1991
			US 5227384 A	13-07-1993
			AT 112774 T	15-10-1994
			AU 3127089 A	14-09-1989
			CA 1337072 C	19-09-1995
			DE 68918755 D1	17-11-1994
			DE 68918755 T2	09-03-1995
			DK 121189 A	15-09-1989
			EP 0344414 A1	06-12-1989
			ES 2061753 T3	16-12-1994
			FI 891200 A ,B,	15-09-1989
			JP 1316378 A	21-12-1989
			JP 2714426 B2	16-02-1998
			NO 891058 A ,B,	15-09-1989
			NZ 228336 A	29-01-1992
			PH 26967 A	28-12-1992
			ZA 8901926 A	30-05-1990
			PT 90208 A	10-11-1989
US 499051B	A	05-02-1991	AT 96795 T	15-11-1993
			CA 2025084 A1	14-03-1991
			DE 69004389 D1	09-12-1993
			DE 69004389 T2	24-03-1994
			DK 417745 T3	13-12-1993
			EP 0417745 A2	20-03-1991
			ES 2059942 T3	16-11-1994
			IE 903314 A1	10-04-1991
			JP 3109386 A	09-05-1991
			PT 95296 A	22-05-1991
WO 9612703	A	02-05-1996	US 5635514 A	03-06-1997
			AU 3684795 A	15-05-1996
			WO 9612703 A1	02-05-1996
			US 5688822 A	18-11-1997
US 5486525	A	23-01-1996	AT 212992 T	15-02-2002
			AU 690620 B2	30-04-1998
			AU 1303695 A	03-07-1995
			CA 2176247 A1	22-06-1995
			DE 69429827 D1	21-03-2002
			DE 69429827 T2	21-11-2002
			DK 734386 T3	27-05-2002
			EP 0734386 A1	02-10-1996
			ES 2173171 T3	16-10-2002
			JP 9507474 T	29-07-1997
			PT 734386 T	31-07-2002
			WO 9516687 A1	22-06-1995
			BR 1100809 A3	23-11-1999
EP 0076530	A	13-04-1983	AT 16928 T	15-12-1985
			AU 553845 B2	31-07-1986
			AU 8892582 A	14-04-1983
			BA 96068 B1	06-03-1998

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/043112

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0076530 A		BG 41820 A3	14-08-1987
		CA 1183847 A1	12-03-1985
		CZ 8206821 A3	14-06-1995
		CY 1445 A	10-03-1989
		DD 203048 A5	12-10-1983
		DE 3267923 D1	23-01-1986
		DK 435182 A ,B,	02-04-1983
		EP 0076530 A2	13-04-1983
		ES 8400405 A1	16-01-1984
		ES 8603413 A3	16-04-1986
		FI 823348 A ,B,	02-04-1983
		GR 76911 A1	04-09-1984
		HK 81188 A	14-10-1988
		HR 930478 B1	30-06-1997
		HU 189629 B	28-07-1986
		IE 54024 B1	24-05-1989
		IL 66916 A	29-09-1985
		JP 58090552 A	30-05-1983
		KE 3828 A	02-12-1988
		LU 88217 A9	03-02-1994
		MY 23887 A	31-12-1987
		NL 930016 I1	03-05-1993
		NO 823297 A ,B,	05-04-1983
		NZ 201856 A	31-01-1985
		PH 25704 A	18-09-1991
		PL 238469 A1	16-07-1984
		PL 245223 A1	30-07-1984
		PT 75634 A ,B	01-10-1982
		RO 84704 A1	17-07-1984
		SI 8212190 A8	30-06-1995
		SK 682182 A3	05-02-1997
		US 4962115 A	09-10-1990
		US 5057525 A	15-10-1991
		US 5137896 A	11-08-1992
		YU 219082 A1	30-06-1985
		ZA 8207194 A	30-05-1984
		KR 8601603 B1	13-10-1986
		KR 8601584 B1	10-10-1986
		LT 2090 R3	15-07-1993
		LV 5044 A3	10-06-1993
		SU 1593569 A3	15-09-1990
US 5585492 A	17-12-1996	AT 224381 T	15-10-2002
		AU 3686595 A	02-05-1996
		CA 2202371 A1	18-04-1996
		DE 69528287 D1	24-10-2002
		DE 69528287 T2	31-07-2003
		DK 804427 T3	27-01-2003
		EP 1221441 A2	10-07-2002
		EP 0804427 A1	05-11-1997
		ES 2183886 T3	01-04-2003
		JP 10512848 T	08-12-1998
		PT 804427 T	31-01-2003
		WO 9611192 A1	18-04-1996
		US 5719306 A	17-02-1998
US 5137896 A	11-08-1992	AT 16928 T	15-12-1985
		AU 553845 B2	31-07-1986

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No  
PCT/US2004/043112

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5137896	A		AU 8892582 A	14-04-1983
			BA 96068 B1	06-03-1998
			BG 41820 A3	14-08-1987
			CA 1183847 A1	12-03-1985
			CZ 8206821 A3	14-06-1995
			CY 1445 A	10-03-1989
			DD 203048 A5	12-10-1983
			DE 3267923 D1	23-01-1986
			DK 435182 A ,B,	02-04-1983
			EP 0076530 A2	13-04-1983
			ES 8400405 A1	16-01-1984
			ES 8603413 A3	16-04-1986
			FI 823348 A ,B,	02-04-1983
			GR 76911 A1	04-09-1984
			HK 81188 A	14-10-1988
			HR 930478 B1	30-06-1997
			HU 189629 B	28-07-1986
			IE 54024 B1	24-05-1989
			IL 66916 A	29-09-1985
			JP 58090552 A	30-05-1983
			KE 3828 A	02-12-1988
			LU 88217 A9	03-02-1994
			MY 23887 A	31-12-1987
			NL 930016 I1	03-05-1993
			NO 823297 A ,B,	05-04-1983
			NZ 201856 A	31-01-1985
			PH 25704 A	18-09-1991
			PL 238469 A1	16-07-1984
			PL 245223 A1	30-07-1984
			PT 75634 A ,B	01-10-1982
			RO 84704 A1	17-07-1984
			SI 8212190 A8	30-06-1995
			SK 682182 A3	05-02-1997
			US 4962115 A	09-10-1990
			US 5057525 A	15-10-1991
			YU 219082 A1	30-06-1985
			ZA 8207194 A	30-05-1984
			KR 8601603 B1	13-10-1986
			KR 8601584 B1	10-10-1986
			LT 2090 R3	15-07-1993
			LV 5044 A3	10-06-1993
			SU 1593569 A3	15-09-1990
WO 2004005286	A	15-01-2004	AU 2003243846 A1	23-01-2004
			WO 2004005286 A2	15-01-2004
			BR 0312547 A	26-04-2005
			CA 2491243 A1	15-01-2004
			EP 1521754 A2	13-04-2005
EP 0417745	A	20-03-1991	US 4990518 A	05-02-1991
			AT 96795 T	15-11-1993
			CA 2025084 A1	14-03-1991
			DE 69004389 D1	09-12-1993
			DE 69004389 T2	24-03-1994
			DK 417745 T3	13-12-1993
			EP 0417745 A2	20-03-1991
			ES 2059942 T3	16-11-1994
			IE 903314 A1	10-04-1991

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/043112

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0417745	A		JP 3109386 A PT 95296 A	09-05-1991 22-05-1991
WO 9927929	A	10-06-1999	US 6015817 A AU 1611099 A CA 2311923 A1 EP 1035850 A1 WO 9927929 A1	18-01-2000 16-06-1999 10-06-1999 20-09-2000 10-06-1999
US 5227384	A	13-07-1993	US 4914108 A US 5019581 A US 5302601 A AT 112774 T AU 3127089 A CA 1337072 C DE 68918755 D1 DE 68918755 T2 DK 121189 A EP 0344414 A1 ES 2061753 T3 FI 891200 A ,B, JP 1316378 A JP 2714426 B2 NO 891058 A ,B, NZ 228336 A PH 26967 A ZA 8901926 A PT 90208 A	03-04-1990 28-05-1991 12-04-1994 15-10-1994 14-09-1989 19-09-1995 17-11-1994 09-03-1995 15-09-1989 06-12-1989 16-12-1994 15-09-1989 21-12-1989 16-02-1998 15-09-1989 29-01-1992 28-12-1992 30-05-1990 10-11-1989
US 5446032	A	29-08-1995	AT 169917 T DE 69226703 D1 DE 69226703 T2 EP 0605434 A1 WO 9302080 A1	15-09-1998 24-09-1998 18-02-1999 13-07-1994 04-02-1993
EP 0344414	A	06-12-1989	US 4914108 A US 5019581 A AT 112774 T AU 3127089 A CA 1337072 C DE 68918755 D1 DE 68918755 T2 DK 121189 A EP 0344414 A1 ES 2061753 T3 FI 891200 A ,B, JP 1316378 A JP 2714426 B2 NO 891058 A ,B, NZ 228336 A PH 26967 A US 5227384 A US 5302601 A ZA 8901926 A PT 90208 A	03-04-1990 28-05-1991 15-10-1994 14-09-1989 19-09-1995 17-11-1994 09-03-1995 15-09-1989 06-12-1989 16-12-1994 15-09-1989 21-12-1989 16-02-1998 15-09-1989 29-01-1992 28-12-1992 13-07-1993 12-04-1994 30-05-1990 10-11-1989
US 5011832	A	30-04-1991	CA 2045388 A1 EP 0467434 A1	27-12-1991 22-01-1992

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/043112

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
US 5011832	A	IE 912218 A1	01-01-1992	
		JP 2057933 C	10-06-1996	
		JP 5092976 A	16-04-1993	
		JP 7091295 B	04-10-1995	
<hr/>				
GB 2158440	A	13-11-1985	BE 902611 A1	30-09-1985
			DE 3521303 A1	31-10-1985
			JP 61167687 A	29-07-1986
<hr/>				